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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,717	05/02/2001	Martin D. Smalc	P-1032/N-7113	7022

7590 03/27/2003

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EXAMINER

LEO, LEONARD R

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/847,717

Applicant(s)

SMALC, MARTIN D.

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-6, 12-14, 25, 26 and 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11, 15-24, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

As noted in the Office action mailed December 16, 2002, applicant's election without traverse of the invention of Group II in Paper No. 10 is acknowledged.

Claims 1-6 and 29-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant's election of the species of Figure 1 in Paper No. 10 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 12 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

In response to the Office action mailed December 16, 2002,

Applicant's election of the species of Figure 7 in Paper No. 12 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 13-14 and 25-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

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Claim 12 remains withdrawn, since the claim reads only on the nonelected species of Figure 12. The fins 304 in Figure 1 are not planar, since the fins are formed between rollers and are rounded or airfoil shaped.

In the instant election requirement, the Figures 7 and 9 should have been denoted as sub-species. The sub-species are embodiments of the elected species of Figure 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-9 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Voorhes et al (Figures 13-14).

Claims 7-11, 15-18 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Yao (Figure 4).

Regarding claim 16 above, the recitation of “formed by rolling ...” is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance. See MPEP 2113.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 19-20 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voorhes et al or Yao in view of Jensen.

Voorhes et al or Yao discloses all the claimed limitations except a base composed of plural pieces with corresponding shaped recesses to receive the fins.

Jensen discloses a heat exchanger assembly comprising a plurality of stacked pieces 30 receiving a plurality of fins 21, wherein the pieces have corresponding shaped recesses 31 for the purpose of facilitating assembly.

Since Voorhes et al or Yao and Jensen are both from the same field of endeavor and/or analogous art, the purpose disclosed by Jensen would have been recognized in the pertinent art of Voorhes et al or Yao.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Voorhes et al or Yao a base composed of plural pieces with corresponding shaped recesses to receive the fins for the purpose of facilitating assembly as recognized by Jensen.

Regarding claim 23, the claim is rejected as applied to claim 16 above.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Voorhes et al or Yao in view of Larson or Bellar et al.

The device of Voorhes et al or Yao lacks a thermal interface.

Larson discloses a heat sink assembly 5 comprising a base 6 having a plurality of fins 6a, and a thermal interface 8 disposed between the base and component 7 for the purpose of improving heat conduction there between.

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Bellar et al discloses a heat sink assembly comprising a heat sink 32 having a base and a plurality of fins, and a thermal interface 10, 12 disposed between the heat sink and component 36 for the purpose of improving heat conduction there between.

Since Voorhes et al or Yao and Larson or Bellar et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Larson or Bellar et al would have been recognized in the pertinent art of Voorhes et al or Yao.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Voorhes et al or Yao a thermal interface disposed between the heat sink and component for the purpose of improving heat conduction there between as recognized by Larson or Bellar et al.

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voorhes et al or Yao in view of Jensen as applied to claims 19-20 and 24 above, and further in view of Larson or Bellar et al as applied to claim 27 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

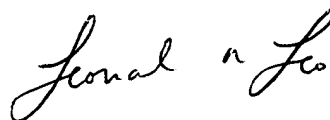
Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648.

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Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.

A handwritten signature in cursive script that reads "Leonard R. Leo".

LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3743

March 24, 2003